

Amendment under 37 C.F.R. § 1.111
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REMARKS

Claims 1-7 have been examined.

Preliminary Matters

Applicant's attorney would like to thank the Examiner for courtesies extended in the telephonic interview on February 21, 2002, and for providing an explanation of the Examiner's interpretation of Applicant's claim language and the applied disclosures of the cited references.

In addition, Applicant's attorney would like to thank the Examiner for courtesies extended in the telephonic interview on January 17, 2002, and for issuing an Interview Summary (Paper No. 6) indicating that the copy of the certified copy of the priority document has been received in the National Stage Application from the International Bureau.

Claims

Applicant submits that claims 1-7 have been amended to correct minor informalities. Applicant notes that these amendments do not narrow the claims, are not required for reasons relating to patentability, and therefore, do not implicate a *Festo* estoppel.

Claim Rejections under 35 U.S.C. § 112, second paragraph

The Examiner has rejected claims 2, 3, and 5 under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 2, 3, and 5 have been amended to correct antecedent basis and more clearly describe what Applicant considers his invention. Applicant submits that these amendments fully address and overcome the Examiner's rejections. These amendments do not

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narrow the scope of the original claims 2, 3, and 5, but are there to edit claims 2, 3, and 5, for precision of language without narrowing the claims, and thus are not subject to a *Festo* estoppel.

Claim Rejections under 35 U.S.C. § 102(b) by Pocock et al.

The Examiner has rejected claims 1-6 under 35 U.S.C. § 102(b) as allegedly being anticipated by Pocock et al. (U.S. Patent No. 4,296,667 hereinafter "Pocock"). For the following reasons, Applicant traverses this rejection.


Applicant's invention relates to a container 1 with a slightly cylindrical wall 2 and a petaloid-type base 6, 7 which extends such wall. The base comprises a wall shaped convexly towards the outside, where at least three members 6 originate which are formed by outgrowths regularly distributed and separated in pairs by a portion of the convex base wall 7. The base wall 7 is hemispherical, except for a peripheral marginal linking area 8 with the cylindrical wall. The aforesaid marginal zone 8 has a curve R1, R2 with an inflection 9.

As shown in Figure 3, for example, the marginal zone 8 has a curve R1, R2 with an inflection 9. Based on its ordinary meaning, an inflection is a change in curvature of an arc or curve from concave to convex or conversely (See Webster's Collegiate Dictionary, 2002). Thus, as shown in Figure 3, for example, the marginal zone 8 has a curve R1, R2 that changes in curvature from concave to convex.

One problem with thermoplastic containers is that the base tends to deteriorate, deform or burst when the full container is dropped or subject to internal overpressure (See page 1, lines 11-13). Applicant solves the problem of deformation without stretching the material too much by

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providing a marginal area in the shape of an inflected curve, which allows the marginal linking area to deform without stretching the material too much, as shown in Figures 3-6C (See page 5, lines 8-9). Moreover, the hemispherical part 7 does not undergo major deformation; rather, the marginal area assumes the shape of a curve whose convexity is turned towards the outside, thereby extending the curve of the hemispherical part, as shown, for example, in Figure 5.

Applicant submits that Pocock does not disclose, or even suggest, that "the base wall (7) is hemispherical, except for a peripheral marginal linking area (8) with the cylindrical wall, aforesaid marginal zone (8) has a curve (R1; R2) with an inflection (9)," as recited in Applicant's independent claim 1. 

In contrast, Pocock relates to a bottle 10 having a side wall or body 21 into which the bottom end 20 smoothly blends. The bottom end ³⁰20 is basically of a hemispherical outline having projecting therefrom a plurality of circumferentially spaced hollow legs 23 with the bottom wall actually being in the form of spaced-apart wall portions 22 disposed between adjacent legs 23 (See col. 2, lines 16-24).

In Pocock, the bottom wall portion upwardly from the curved line portion 31 includes a *straight line portion 32* which extends from the adjacent part of the curved line section 31, as shown in Figure 5 (See col. 3, lines 18-21; see also Figures 6-9, straight lines 32, 41 and 47). Pocock further discloses that the straight line cross sectional portion 32 is the cross section of frustoconical intermediate portion (See col. 3, lines 21-23). Pocock, however, does not disclose, or even suggest, a marginal zone having a curve R1, R2 with an inflection. Rather, Pocock discloses a curved line section, a straight line intermediate section, a short radius curved line, and

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a large radius curved line. As shown in Figure 5 of Pocock, each curve is curved in the same direction, therefore, Pocock does not disclose an inflection. In other words, Pocock does not disclose a change in curvature of a curve from concave to convex, or conversely, from convex to concave.

Thus, Applicant submits that Pocock does not disclose, or even suggest, that "the base wall (7) is hemispherical, except for a peripheral marginal linking area (8) with the cylindrical wall, aforesaid marginal zone (8) has a curve (R1; R2) with an inflection (9)," as recited in Applicant's independent claim 1. Therefore, Pocock does not disclose, or even suggest, all of the recitations of Applicant's independent claim 1 and the rejection of this claim should be withdrawn.

In addition, Applicant submits that claims 2-6 are also patentable over Pocock at least by virtue of their dependency on independent claim 1 and the rejection of these claims should also be withdrawn.

Claim Rejections under 35 U.S.C. § 102(b) by Motill

The Examiner has rejected claims 1, 5, 6, and 7 under 35 U.S.C. § 102(b) as allegedly being anticipated by Motill (U.S. Patent No. 4,368,825 hereinafter "Motill"). For the following reasons, Applicant traverses this rejection.

Applicant submits that Motill does not disclose, or even suggest, a base wall 7 that is "hemispherical, except for a peripheral marginal linking area (8) with the cylindrical wall," as recited in Applicant's independent claim 1.

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Applicant discloses that the presence of the hemispherical wall makes it possible to distribute the stresses caused by the internal overpressure, or by the weight of the contents of the container, in a uniform manner, thereby eliminating areas that are susceptible to breakage cracks (See page 5, lines 1-3). As shown in Figures 3-6C, the base wall 7, according to Applicant's invention, is hemispherical except for the peripheral marginal linking area 8 with the cylindrical wall.

In addition, the marginal linking area can deform under stress action, thereby further reducing the stresses exerted on the hemispherical wall even further (See page 5, lines 4-5). In particular, Applicant claims a *marginal* linking area; that is, a linking area located at the outer limits of the container. More particularly, Applicant claims a *peripheral* marginal linking area; that is, relating to or on the outer limit or edge of the container. Thus, in Applicant's claimed invention, the location of the peripheral marginal linking area is at the outer edge of the container where the hemispherical base wall 7 is linked to the cylindrical wall 2, as shown in Applicant's Figures 1-6C.

As disclosed by Applicant, the location of the linking area is important to the mechanical performance of the container (See page 5, lines 1-14). For example, the location and curve of the marginal linking area are such that deformation is limited and the risks of rupture are nonexistent (See page 5, lines 5-7). In the marginal area, the material is stretched to a high degree during manufacturing, and the mechanical strength is therefore increased (See page 5, lines 7-8). Further, the inflected shape of the curve allows it to deform without stretching the material too much (See page 5, lines 8-9). Moreover, since the top end of each of the members is linked with the peripheral wall, a mechanical reaction occurs between the top ends of two adjacent members

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and the inflected marginal part located between these members, as a result of which the deformation of the marginal part under stress is limited (See page 5, lines 11-14).

In contrast, as illustrated in Figures 3, 5, 7, and 9, Motill does not disclose a base wall that is entirely hemispherical, except for a peripheral marginal linking area that is not a hemispherical shape. Rather, Motill discloses a shallow, nearly flat, hemispherical cavity CDE in the central portion of the base (See Figures 3, 5, 7, and 9; see also col. 6, lines 37-41; and col. 6, lines 50-61). Specifically, Motill discloses that the maximum depth of the concavity C and E is shallow relative to dimension Rs and therefore the central portion of the concavity profile has a nearly flat configuration (See col. 6, lines 50-61). In addition, Motill discloses that the segments CD and DE form a nearly flat mid-point because of gate requirements in the molding operation.

Moreover, as shown in Figures 3, 5, 7, and 9, the concavity CDE is only a small portion of the base and it is located in the center portion of the base. The majority of the base comprises the segments AB and BC, and EF and FG. Thus, unlike Applicant's claimed invention, the base of Motill is not a hemispherical shape, with the exception of the peripheral marginal areas; rather, the base of Motill has not only a concavity CDE, but also generally flat segments AB and FG and curved segments BC and EF, which surround the concavity CDE, as shown in Figure 9.

Furthermore, the location of point B is depicted in each of the respective figures approximately midway between the side wall 3 and the axis of the container. Moreover, Motill does not disclose, or even suggest, locating point B near the periphery of the container or in a

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marginal location, such that the shape of the base wall is hemispherical, except for a peripheral marginal linking area that is not a hemispherical shape.

Thus, Applicant submits that Motill does not disclose, or even suggest, a base wall that is "hemispherical, except for a peripheral marginal linking area (8) with the cylindrical wall," as recited in Applicant's independent claim 1. Therefore, Motill does not disclose, or suggest, all of the recitations of Applicant's independent claim 1 and the rejection of this claim should be withdrawn. In addition, Applicant submits that claims 5, 6, and 7 are also patentable over Motill at least by virtue of their dependency on independent claim 1 and the rejection of these claims should also be withdrawn.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned attorney at the telephone number listed below.

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Applicant notes that a Petition for a Two Month Extension of Time has been filed under separate cover in this case. In addition, Applicant hereby petitions for any additional extension of time which may be required to maintain the pendency of this case, and any additional required fee, except for the Issue Fee, for such additional extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,

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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

1. (Amended) A container (1) with a slightly cylindrical wall (2) and a petaloid-type base (6,7) which extends such wall, said base comprising a wall in general shaped convexly towards the outside, where at least three members (6) originate which are formed by outgrowths regularly distributed and separated in pairs by a portion of the convex base wall (7), characterized in that wherein

the base wall (7) is hemispherical, except for a peripheral marginal linking area (8) with the cylindrical wall,

aforesaid marginal zone (8) has a curve (R1; R2) with an inflection (9) so that the base wall and the peripheral marginal zone as well as the cylindrical wall and the peripheral marginal area are linked in an almost tangential manner, and

the top end of each member is connected with the cylindrical wall (2).

2. (Amended) A container according to Claim 1, characterized in that wherein the members (6) are linked with the hemispherical wall (7), in the direction of ~~the~~ a central pole (10) of the hemispherical wall (7) ~~latter~~, in a roughly ~~tangentially~~ tangential manner.

3. (Twice Amended) A container according to Claim 1, characterized in that wherein the members (6) are linked with the hemispherical wall (7), in the direction of ~~the~~ a central pole

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(10) of the hemispherical wall (7)~~latter~~, in immediate proximity of the hemispherical wall (7)~~latter~~.

4. (Twice Amended) A container according to Claim 1, ~~characterized in that~~wherein the curve radius (R) of the hemispherical wall (7) is between 80% and 120% of the radius of the cylindrical wall (2).

5. (Twice Amended) A container according to Claim 1, ~~characterized in that~~wherein a clearance is provided between the central pole (10) of the hemispherical part and ~~the a~~ supporting surface (11) of each member (6).

6. (Twice Amended) A container according to Claim 1, ~~characterized in that~~wherein the top end of the members (6) is linked with the cylindrical wall (2) in an almost tangential manner.

7. (Twice Amended) A container according to Claim 1, ~~characterized in that~~wherein it furthermore comprises a shoulder (3), a collar (4) and a neck (5) provided with means which make it possible to close it by means of suitable device.